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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,906	06/28/2006	Andreas Ziegler	ATM-2412	5034

7590 04/02/2009  
Fisher Christen & Sabol  
1725 K Street NW  
Suite 1108  
Washington, DC 20006

EXAMINER
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NORRIS, JEREMY C

ART UNIT	PAPER NUMBER
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2841

MAIL DATE	DELIVERY MODE
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04/02/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,906	<b>Applicant(s)</b> ZIEGLER ET AL.	
	<b>Examiner</b> Jeremy C. Norris	<b>Art Unit</b> 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 12-15 and 17 is/are rejected.
- 7) ☒ Claim(s) 5-11, 16 and 18-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

The drawings were received on 12 February 2008. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2003/0116343 A1 (Adachi).

Adachi discloses, referring primarily to figure a flexible substrate with a base layer (17) of plastic and at least one electrically conductive structure (13-1) printed with electrically conductive ink on one side of the base layer, the at least one electrically conductive structure between the base layer and at least one top layer (15) of plastic and each of the possible further electrically conductive structures (12-1) is situated between each of the two further top layers, and the base layer joined to the at least one top layer and each of the possible further top layers with neighboring top layers [claim 1], wherein the at least one top layer exhibits at least one further electrically conductive

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structure (12-2) printed with electrically conductive ink on the at least one top layer, and an electrically insulating intermediate layer (11) of plastic is provided between each of the electrically conductive structures (13-1, 12-2) [claim 2] wherein the at least one top layer (14) is formed by the at least one further electrically conductive structure of the base layer with the electrically conductive structure folded at least once over itself ([0006]) [claim 3] wherein the substrate is rolled up [claim 4], wherein the substrate is rolled up (col. 12, lines 20-30) [claim 15], wherein the at least one electrically conductive structure comprises structure parts that are printed one over the other and each printed structure is set back from the edge of the underlying printed structure forming a step [claim 17].

Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,294,111 B1 (Shacklett).

Shacklett discloses, referring primarily to figure 1, a process for continuous printing electrically conductive structures (14) with an electrically conductive ink on a flexible substrate (12) of plastic (col. 8, lines 50-55), characterized in that wherein the substrate is printed using the gravure printing method, intaglio or rotogravure (col. 5, lines 15-25) [claim 12], wherein the electrically conductive structures are printed a number of times on top of each other a number of times in order to increase the electrical conductivity (col. 7, lines 1-5) [claim 13], wherein the edge of each printed structure is set back from the edge of the underlying printed structure thus forming a step [claim 14].

***Allowable Subject Matter***

Claims 5-11, 16, and 18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 5 states the limitation “wherein the electrically conductive structures are conductive strips that cross each other many times”. This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art. Claim 16 states the limitation “wherein the electrically conductive structures are conductive strips that cross each other many times”. This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art. Claim 18 states the limitation “wherein the base layer and the at least one top layer or in the case of further top layers, at least the top layer furthest removed from the base layer each exhibits a barrier layer as barrier against penetration of water vapor. This limitation, in conjunction with the other claimed features, was neither found to be disclosed in, nor suggested by, the prior art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is (571)272-1932. The examiner can normally be reached on Monday - Thursday, 8:00 am - 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy C. Norris  
Primary Examiner  
Art Unit 2841

/Jeremy C. Norris/  
Primary Examiner, Art Unit 2841